SEATS - POWER

1996 ACCESSORIES & EQUIPMENT General Motors Corp. Power Seats

DESCRIPTION & OPERATION

SYSTEM DESCRIPTION

Power seats operate using toggle switches located on seat side. Seat adjusters are powered by a 12-volt, reversible motor with an internal circuit breaker. A 30-amp, plug-in circuit breaker, located in fuse block, protects power seat wiring. On some models, seats are available with heating and memory options.

6-WAY POWER SEATS

Power seat uses 3 reversible motors that operate seat functions. Front and back parts of seat are operated by different motors, and can be raised and lowered independently. Third motor controls forward/backward movement. Drive cables connect motor to gear nuts, which turn jack screws and adjusters at each side of seat.

POWER RECLINING SEATBACK

Power reclining seat back is an option on some models. System includes a motor, drive cable, actuator and control switch. Switch is on seat edge. Power seat back recliners operate independently of other power seat adjustments.

SPORT LUMBAR SEATS

Sport lumbar seat is an option on some models. It is used on either the driver's seat only, or on both front seats. Power is supplied by a 30-amp circuit breaker in fuse block. Adjustments are made by a solenoid valve assembly located under seat(s). Operation is controlled by a switch located on seat side, or in center console.

Backrest lateral restraints (side bolsters) are power-adjusted 15 degrees in or out. Lumbar support can be pneumatically-adjusted from soft to firm by inflating the 3 compartment bladders located in seat back. Inflation of bladders is controlled by a pressure pump, bleed down valves and a control switch. Seat back angle is power adjusted by a control in left bolster.

ADJUSTMENTS

HORIZONTAL ACTUATOR

1. Chucking can be corrected by adjusting horizontal actuator and pinion gear to fully mesh with lower adjuster track rack gear. Operate seat to full up position and about 3/4 forward. Loosen horizontal actuator attaching screws. See **Fig. 1**.
2. Using a large screwdriver, apply outward pressure on horizontal actuator (about 15-25 ft. lbs.) and energize horizontal switch to move seat slightly fore and aft. This keeps seat horizontal actuator pinion gear teeth in close contact with lower track rack gear teeth and eliminates free play between gear teeth. Tighten screws while maintaining outward pressure against horizontal actuators.

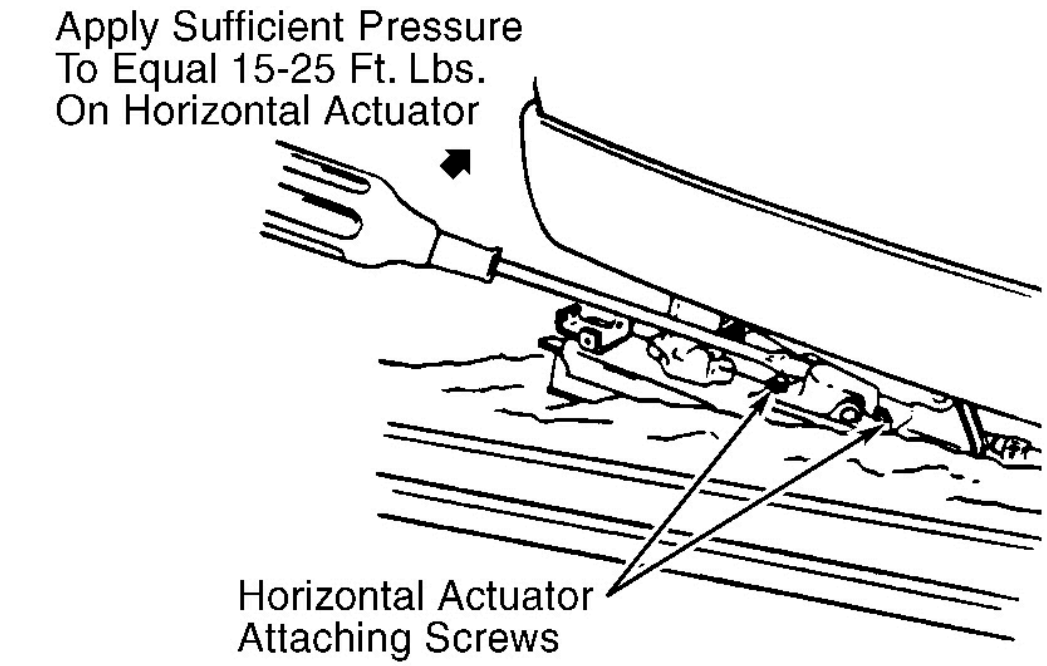


Fig. 1: Adjusting Horizontal Actuator (Caprice, Impala SS & Roadmaster)
Courtesy of GENERAL MOTORS CORP.

SEAT ADJUSTER PHASING

When installing power seat adjusters (except at back recliner), ensure each pair of adjusters is in phase with each other. When adjusters are out of phase, one adjuster will reach its maximum travel limit before the other, resulting in improper seat travel.

Horizontal Travel

Operate seat until one adjuster reaches full forward position. Detach horizontal drive cable from adjuster which has reached its travel limit. Operate seat forward until other adjuster reaches its full forward position. Reconnect drive cable of first adjuster. Adjusters are now in phase.

Vertical Travel (Front Or Rear)

1. Operate seat until one adjuster has reached fully raised position at both front and rear vertical travel

limits. Disconnect both front and rear vertical drive cables from adjuster which has reached its travel limit.

2. Operate seat until other adjuster reaches fully raised position. Reconnect previously disconnected front and rear vertical drive cables. Seat adjusters should be in phase. If not, repeat procedure.

TROUBLE SHOOTING

PRELIMINARY CHECKS

1. If power accessory circuit breaker opens whenever power seat switch is operated, check circuits for a short to ground. Check for proper installation of aftermarket electronic equipment.
2. Check for broken or partially broken wire inside of insulation, which could cause system malfunction but prove good in a continuity/voltage check with system disconnected. These circuits may be intermittent or resistive when loaded. Check by monitoring for voltage drop with system under load.

ONE ADJUSTER REACHES MAXIMUM HORIZONTAL OR VERTICAL POSITION BEFORE OTHER ADJUSTER

Adjusters are out of phase. See **SEAT ADJUSTER PHASING** under ADJUSTMENTS.

SEAT DOES NOT MOVE SMOOTHLY

Check for improper lubrication of adjuster shoes and channels. On models without power recline, check for horizontal actuator-to-rack gear adjusted too tight. See **HORIZONTAL ACTUATOR** under **ADJUSTMENTS**. On models with power recline, check drive shafts for proper insertion into motor or drives. Ensure drive shafts are not crimped.

ONE ADJUSTER WILL NOT MOVE HORIZONTALLY

On models with power recline, check for disconnected or damaged drive shafts. On models without power recline, check for disconnected or damaged horizontal drive cable. Repair or replace as necessary. Check for inoperative horizontal actuator, and replace as necessary.

ONE ADJUSTER WILL NOT MOVE VERTICALLY (WITHOUT POWER RECLINE)

Check for disconnected or damaged vertical drive cable. Repair or replace as necessary. Check for damaged vertical actuator, and replace as necessary.

SYSTEM TESTING

BASIC SEAT FUNCTIONS

All Seat Functions Inoperative

1. Using test light, backprobe between Orange wire at inoperative power seat switch and ground. If test light glows, go to next step. If test light does not glow, repair poor connections or open in Orange wire

between power seat switch and fuse block.

2. Backprobe between Orange and Black wires at inoperative power seat switch. If test light glows, check for poor connections at inoperative power seat switch. If connections are okay, replace power seat switch. If test light does not glow, repair open in Black wire between power seat switch and ground.

Entire Seat Will Not Go Forward &/Or Back

1. Using test light, backprobe between Orange and Tan wires at inoperative power seat switch connector terminals. If test light glows, go to next step. If test light does not glow, check for poor connection at Tan wire. If connection is okay, replace inoperative power seat switch.
2. Backprobe between Orange and Light Green wires at inoperative power seat switch connector. If test light glows, go to next step. If test light does not glow, check for poor connection at Light Green wire. If connection is okay, replace inoperative power seat switch.
3. Backprobe between Light Green and Black wires at inoperative power seat switch connector. Move power seat switch lever to back position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
4. Backprobe between Tan and Black wires at inoperative power seat switch connector. Move power seat switch lever to forward position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
5. Check for poor connection or open in Light Green wire and/or Tan wires between inoperative power seat switch and forward/back motor. If circuits are okay, replace forward/back motor.

Front Height Will Not Go Up &/Or Down

1. Using test light, backprobe between Orange and Dark Green wires at inoperative power seat switch connector. If test light glows, go to next step. If test light does not glow, check for poor connection at Dark Green wire. If connection is okay, replace power seat switch.
2. Backprobe between Orange and Dark Blue wires at inoperative power seat switch connector. If test light glows, go to next step. If test light does not glow, check for poor connection at Dark Blue wire. If connection is okay, replace inoperative power seat switch.
3. Backprobe between Dark Blue and Black wires at inoperative power seat switch connector. Move power seat front height switch lever to down position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
4. Backprobe between Dark Green and Black wires at inoperative power seat switch connector. Move power seat front height switch lever to up position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
5. Check for poor connection or open in Dark Green wire and/or Dark Blue wires between inoperative power seat switch and front height motor. If circuits are okay, replace front height motor.

Rear Height Will Not Go Up &/Or Down

1. Using test light, backprobe between Orange and Yellow wires at inoperative power seat switch connector. If test light glows, go to next step. If test light does not glow, check for poor connection at Yellow wire. If connection is okay, replace power seat switch.
2. Backprobe between Orange and Light Blue wires at inoperative power seat switch connector. If test light

glows, go to next step. If test light does not glow, check for poor connection at Light Blue wire. If connection is okay, replace inoperative power seat switch.

3. Backprobe between Light Blue and Black wires at inoperative power seat switch connector. Move power seat rear height switch lever to down position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
4. Backprobe between Yellow and Black wires at inoperative power seat switch connector. Move power seat rear height switch lever to up position. If test light glows, go to next step. If test light does not glow, replace inoperative power seat switch.
5. Check for poor connection or open in Light Blue wire and/or Yellow wires between inoperative power seat switch and rear height motor. If circuits are okay, replace rear height motor.

POWER RECLINING SEAT (ROADMASTER)

One Recliner Inoperative (Other Recliner Operates Normally)

1. Using test light, backprobe between inoperative recliner switch connector terminal "A" (Orange wire) and ground. If test light glows, go to next step. If test light does not glow, repair open in Orange wire between inoperative recliner switch and fuse block.
2. Backprobe between inoperative recliner switch connector terminals "A" (Orange wire) and "C" (Black wire). Also backprobe between inoperative recliner switch connector terminals "A" (Orange wire) and "F" (Black wire). If test light glows in both positions, go to next step. If test light does not glow in both positions, repair poor connections or open in Black wire(s) between inoperative recliner switch and ground.
3. Backprobe between inoperative recliner switch connector terminals "A" (Orange wire) and "B" (Light Blue wire). Also backprobe between inoperative recliner switch connector terminals "A" (Orange wire) and "E" (Light Green wire). If test light glows in both positions, go to next step. If test light does not glow in both positions, check for poor connections at inoperative recliner switch. If connections are okay, replace inoperative recliner switch.
4. Backprobe between inoperative recliner switch connector terminals "B" (Light Blue wire) and "F" (Black wire). Move recliner switch to recline position. If test light glows, go to next step. If test light does not glow, check for poor connections at inoperative recliner switch. If connections are okay, replace inoperative recliner switch.
5. Backprobe between inoperative recliner switch connector terminals "E" (Light Green wire) and "C" (Black wire). Move recliner switch to forward position. If test light glows, go to next step. If test light does not glow, check for poor connections at inoperative recliner switch. If connections are okay, replace inoperative recliner switch.
6. Backprobe between inoperative recliner switch connector terminal "A" (Orange wire) and recliner motor connector terminal "B" (Light Blue wire). If test light glows, go to next step. If test light does not glow, repair poor connection or open in Light Blue wire between inoperative recliner switch and recliner motor.
7. Backprobe between inoperative recliner switch connector terminal "A" (Orange wire) and recliner motor connector terminal "A" (Light Green wire). If test light glows, check for poor connections at inoperative recliner motor. If connections are okay, replace recliner motor. If test light does not glow, repair poor connection or open in Light Green wire between inoperative recliner switch and recliner motor.

POWER LUMBAR SUPPORT (ROADMASTER)

One Lumbar Support Inoperative (Other Lumbar Support Operates Normally)

1) Using test light, backprobe between inoperative lumbar support switch connector terminal "A" (Orange wire) and ground. If test light glows, go to next step. If test light does not glow, repair open in Orange wire between inoperative lumbar support switch and fuse block.

2) Backprobe between inoperative lumbar support switch connector terminals "A" (Orange wire) and "C" (Black wire). Also backprobe between inoperative lumbar support switch connector terminals "A" (Orange wire) and "F" (Black wire). If test light glows in both positions, go to next step. If test light does not glow in both positions, repair poor connections or open in Black wire(s) between inoperative lumbar support switch and ground.

3) Backprobe between inoperative lumbar support switch connector terminals "A" (Orange wire) and "B" (Light Blue wire). Also backprobe between inoperative lumbar support switch connector terminals "A" (Orange wire) and "E" (Light Green wire). If test light glows in both positions, go to next step. If test light does not glow in both positions, check for poor connections at inoperative lumbar support switch. If connections are okay, replace inoperative lumbar support switch.

4) Backprobe between inoperative lumbar support switch connector terminals "B" (Light Blue wire) and "F" (Black wire). Move lumbar support switch to backward position. If test light glows, go to next step. If test light does not glow, check for poor connections at inoperative lumbar support switch. If connections are okay, replace inoperative lumbar support switch.

5) Backprobe between inoperative lumbar support switch connector terminals "E" (Light Green wire) and "C" (Black wire). Move lumbar support switch to forward position. If test light glows, go to next step. If test light does not glow, check for poor connections at inoperative lumbar support switch. If connections are okay, replace inoperative lumbar support switch.

6) Backprobe between inoperative lumbar support switch connector terminal "A" (Orange wire) and lumbar support motor connector terminal "B" (Light Blue wire). If test light glows, go to next step. If test light does not glow, repair poor connection or open in Light Blue wire between inoperative lumbar support switch and lumbar support motor.

7) Backprobe between inoperative lumbar support switch connector terminal "A" (Orange wire) and lumbar support motor connector terminal "A" (Light Green wire). If test light glows, check for poor connections at inoperative lumbar support motor. If connections are okay, replace lumbar support motor. If test light does not glow, repair poor connection or open in Light Green wire between inoperative lumbar support switch and lumbar support motor.

HEATED SEATS (ROADMASTER)

Heated Seat Inoperative

1. Using test light, backprobe between Orange wire at inoperative seat heater control module and ground. If test light glows, go to next step. If test light does not glow, check HTD SEAT (20-amp) fuse. If fuse is blown, repair short to ground in Orange wire. If fuse is okay, check for poor connections at 10-pin connector C230 (located at base of left "A" pillar, behind kick panel). If connections are okay, repair open

in Orange wire between seat heater and fuse block.

2. Turn ignition on. Move seat heater switch to high position. Using test light, backprobe between White/Brown wire at seat heater switch and ground. If test light glows, go to step 5). If test light does not glow, go to next step.
3. Backprobe between Brown wire at seat heater switch and ground. If test light glows, go to next step. If test light does not glow, check VES (10-amp) fuse. If fuse is blown, repair short to ground in Brown wire. If fuse is okay, check for poor connections at 10-pin connector C230 (located at base of left "A" pillar, behind kick panel). If connections are okay, repair open in Brown wire between seat heater and fuse block.
4. Backprobe between Red wire at seat heater switch and battery voltage. If test light glows, replace seat heater switch. If test light does not glow, ensure ground connections are clean and tight. If connections are okay, repair open in Black wire.
5. Disconnect seat heater switch. Ensure seat heater switch is in high position. Using a Digital Volt-Ohmmeter (DVOM), check resistance between Purple and Gray wire terminals at seat heater switch. Resistance should be zero ohms. Turn seat heater switch to low position. Resistance should be 5.9 ohms. If resistance is okay in both positions, go to next step. If resistance is not okay in both positions, replace seat heater switch.
6. Disconnect seat cushion connector. Using DVOM, check resistance between both Gray wire terminals at seat cushion. If resistance is about 3-5 k/ohms, go to next step. If resistance is not about 3-5k/ohms, replace seat cushion element.
7. Leave seat cushion connector disconnected. Disconnect back cushion connector. Using DVOM, check resistance between Red and Black wire terminals at seat cushion. If resistance is about one ohm, go to next step. If resistance is not about one ohm, replace seat cushion element.
8. Check resistance between both Black wire terminals at back cushion. If resistance is about one ohm, replace seat heater control module. If resistance is not about one ohm, replace back cushion element.

MEMORY SEATS (ROADMASTER)

NOTE: To test inoperative passenger seat, see BASIC SEAT FUNCTIONS.

All Memory Seat Functions Inoperative

1. Disconnect driver's seat adjuster memory module 6-pin connector C318 (Black). Disconnect 23-pin connector C317 (Black) from power seat motor pigtail. Connect connectors C318 and C317 together. If power seats do not operate properly, go to next step. If power seats operate properly, replace driver's seat adjuster memory module.
2. Using test light, backprobe between power seat switch connector terminal "L" (Orange wire) and ground. If test light glows, go to next step. If test light does not glow, repair poor connection, open, or short to ground in Orange wire between power seat switch and fuse block.
3. Backprobe between power seat switch connector terminals "L" (Orange wire) and "A" (Black wire). If test light glows, check for poor connections at power seat switch. If connections are okay, replace power seat switch. If test light does not glow, ensure ground connections are clean and tight. If connections are okay, repair open in Black wire between power seat switch and ground.

Seat Will Not Go Forward &/Or Back

1. Disconnect driver's seat adjuster memory module 6-pin connector C318 (Black). Disconnect 23-pin connector C317 (Black) from power seat motor pigtail. Connect connectors C318 and C317 together. If power seats do not operate properly, go to next step. If power seats operate properly, replace driver's seat adjuster memory module.
2. Using test light, backprobe between power seat switch connector terminals "L" (Orange wire) and "E" (Tan wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Tan wire. If connection is okay, replace power seat switch.
3. Backprobe between power seat switch connector terminals "L" (Orange wire) and "D" (Light Green wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Light Green wire. If connection is okay, replace power seat switch.
4. Backprobe between power seat switch connector terminals "A" (Black wire) and "D" (Light Green wire). Move power seat switch lever to back position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Light Green wire. If circuit is okay, replace power seat switch.
5. Backprobe between power seat switch connector terminals "A" (Black wire) and "E" (Tan wire). Move power seat switch lever to forward position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Tan wire. If circuit is okay, replace power seat switch.
6. Check for poor connection, open, or short to ground in Light Green wire and/or Tan wire between power seat switch and forward/back motor. If circuits are okay, replace forward/back motor.

Front Height Will Not Go Up &/Or Down

1. Disconnect driver's seat adjuster memory module 6-pin connector C318 (Black). Disconnect 23-pin connector C317 (Black) from power seat motor pigtail. Connect connectors C318 and C317 together. If power seats do not operate properly, go to next step. If power seats operate properly, replace driver's seat adjuster memory module.
2. Using test light, backprobe between power seat switch connector terminals "L" (Orange wire) and "F" (Dark Blue wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Dark Blue wire. If connection is okay, replace power seat switch.
3. Backprobe between power seat switch connector terminals "L" (Orange wire) and "G" (Dark Green wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Dark Green wire. If connection is okay, replace power seat switch.
4. Backprobe between power seat switch connector terminals "A" (Black wire) and "G" (Dark Green wire). Move power seat front height switch lever to up position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Dark Green wire. If circuit is okay, replace power seat switch.
5. Backprobe between power seat switch connector terminals "A" (Black wire) and "F" (Dark Blue wire). Move power seat front height switch lever to down position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Dark Blue wire. If circuit is okay, replace power seat switch.
6. Check for poor connection, open, or short to ground in Dark Green wire and/or Dark Blue wire between power seat switch and front height motor. If circuits are okay, replace front height motor.

Rear Height Will Not Go Up &/Or Down

1. Disconnect driver's seat adjuster memory module 6-pin connector C318 (Black). Disconnect 23-pin connector C317 (Black) from power seat motor pigtail. Connect connectors C318 and C317 together. If power seats do not operate properly, go to next step. If power seats operate properly, replace driver's seat adjuster memory module.
2. Using test light, backprobe between power seat switch connector terminals "L" (Orange wire) and "C" (Yellow wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Yellow wire. If connection is okay, replace power seat switch.
3. Backprobe between power seat switch connector terminals "L" (Orange wire) and "B" (Light Blue wire). If test light glows, go to next step. If test light does not glow, check for poor connection at Light Blue wire. If connection is okay, replace power seat switch.
4. Backprobe between power seat switch connector terminals "A" (Black wire) and "B" (Light Blue wire). Move power seat rear height switch lever to down position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Light Blue wire. If circuit is okay, replace power seat switch.
5. Backprobe between power seat switch connector terminals "A" (Black wire) and "C" (Yellow wire). Move power seat rear height switch lever to up position. If test light glows, go to next step. If test light does not glow, check for poor connection or short to ground in Yellow wire. If circuit is okay, replace power seat switch.
6. Check for poor connection, open, or short to ground in Light Blue wire and/or Yellow wire between power seat switch and rear height motor. If circuits are okay, replace rear height motor.

REMOVAL & INSTALLATION

CAUTION: When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION before disconnecting battery.

POWER RECLINER

Removal & Installation (Power Recliner)

1. Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Disconnect electrical connector. Remove seatback cover and pad. See **POWER RECLINER SEATBACK COVER & PAD**. Remove bolts/screws and power recliner. See **Fig. 2**.
2. To install, reverse removal procedure. Tighten power recliner bolts/screws to 24 ft. lbs. (32 N.m).

Removal & Installation (Motor & Cable Housings)

Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Disconnect electrical connector. Note attachment of bracket to gearbox for installation reference. Remove bracket from gearbox. Remove cable housing from gearbox. **DO NOT** crimp cable housing. Remove motor from bracket. To install, reverse removal procedure.

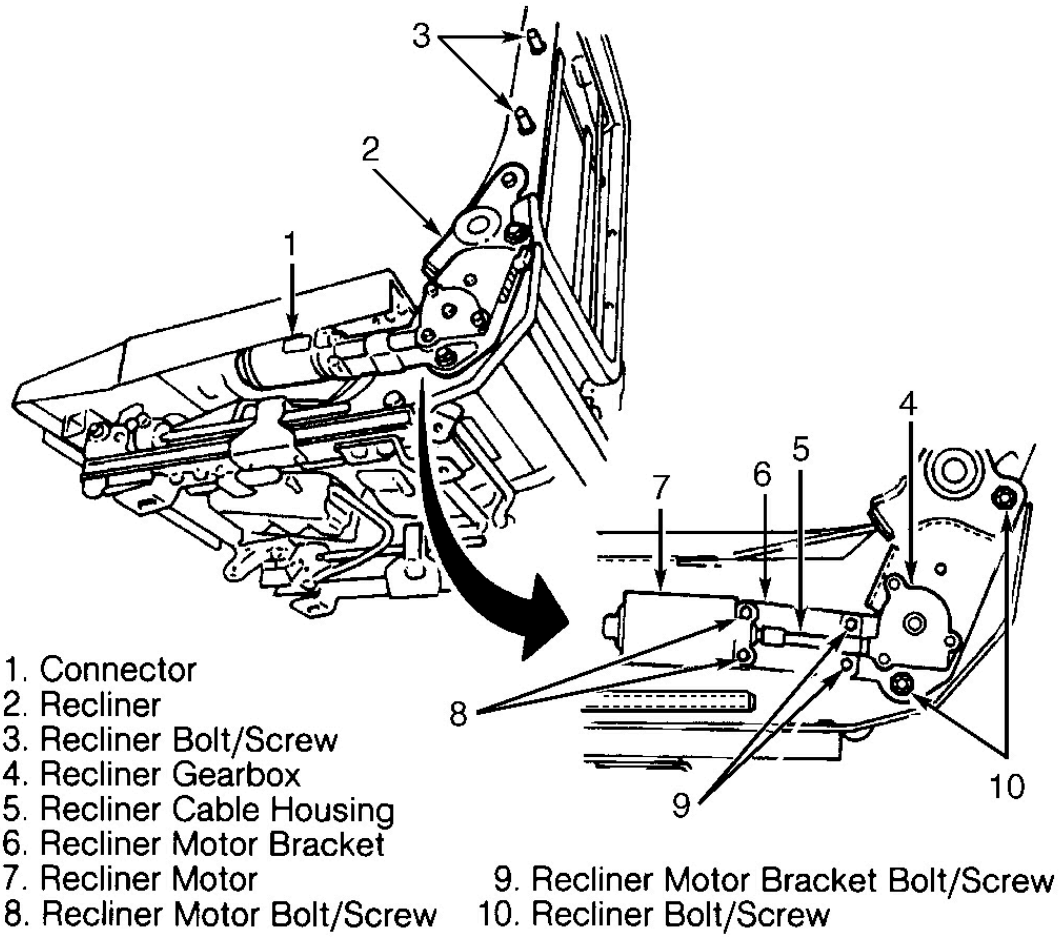


Fig. 2: Removing Power Recliner
Courtesy of GENERAL MOTORS CORP.

POWER RECLINER SEATBACK COVER & PAD

Removal

1. Remove armrest and support. Remove head restraint. Remove seat cushion finish panel. Using flat-blade tool to disengage plastic retainers, remove seatback cushion finish panel. Remove seat. See POWER SEAT.
2. Remove rear upper "J" retainers. Pull rear lower "J" retainer under seatback, and carefully pull seatback cover upward until lower retaining rings on front of seatback are exposed. Remove retaining rings. Repeat process to remove upper retaining rings.
3. Pull seatback cover upward to expose "J" retainer in headrest opening. Remove "J" retainer. Remove seatback cover. Remove foam extrusion from top of seatback, and pull wire on top of pad away from wire

on top of seatback frame. Remove retaining rings and "J" retainer. Remove seatback pad.

4. Remove bolts/screws and lumbar support switch. Disconnect electrical connectors, and push connectors back through holes in seat cushion cover. Remove "J" retainer holding seat cushion cover to flange of seat frame. Remove seat cushion. Pull back seat cushion cover, and remove retaining rings. Remove seat cushion cover.

Installation

1. To install, reverse removal procedure. When installing seat cushion and seatback covers, fold cover back to expose a horizontal trench (driver's and passenger's side) or vertical trench (driver's side) in seat pad or seatback. Locate tie-down retainer in cover to wire in trench, and align hole in cover to workline in seat pad. Attach with retaining rings.
2. Tighten lumbar support switch bolts/screws to 93 INCH lbs. (10.5 N.m). Tighten seatback cushion finish panel bolts/screws to 97 INCH lbs. (11 N.m).

POWER SEAT R & I

Removal & Installation

1. Move seat to fully forward position. Remove bolts/screws and rear trim covers. Remove adjuster nuts and washers from rear anchor plate studs.
2. Move seat to fully rearward position. Remove bolts/screws and front trim covers. Remove adjuster nuts and washers from front anchor plate studs. Disconnect electrical connectors. Remove center seat belt, if necessary. With an assistant, remove seat from vehicle.
3. To install, reverse removal procedure. Tighten adjuster nuts to 18 ft. lbs. (24 N.m). Tighten inner/outer adjuster trim bolts/screws to 17 INCH lbs. (1.9 N.m). Tighten trim cover bolts/screws to 51 INCH lbs. (5.8 N.m).

POWER SEAT ADJUSTER ASSEMBLY

Removal

Remove seat. See **POWER SEAT R & I**. Disconnect drive cables. Remove nut and motor support, leaving motors attached. See **Fig. 3**. Remove bolts/screws and adjuster. Remove upper and lower adjuster covers, if necessary.

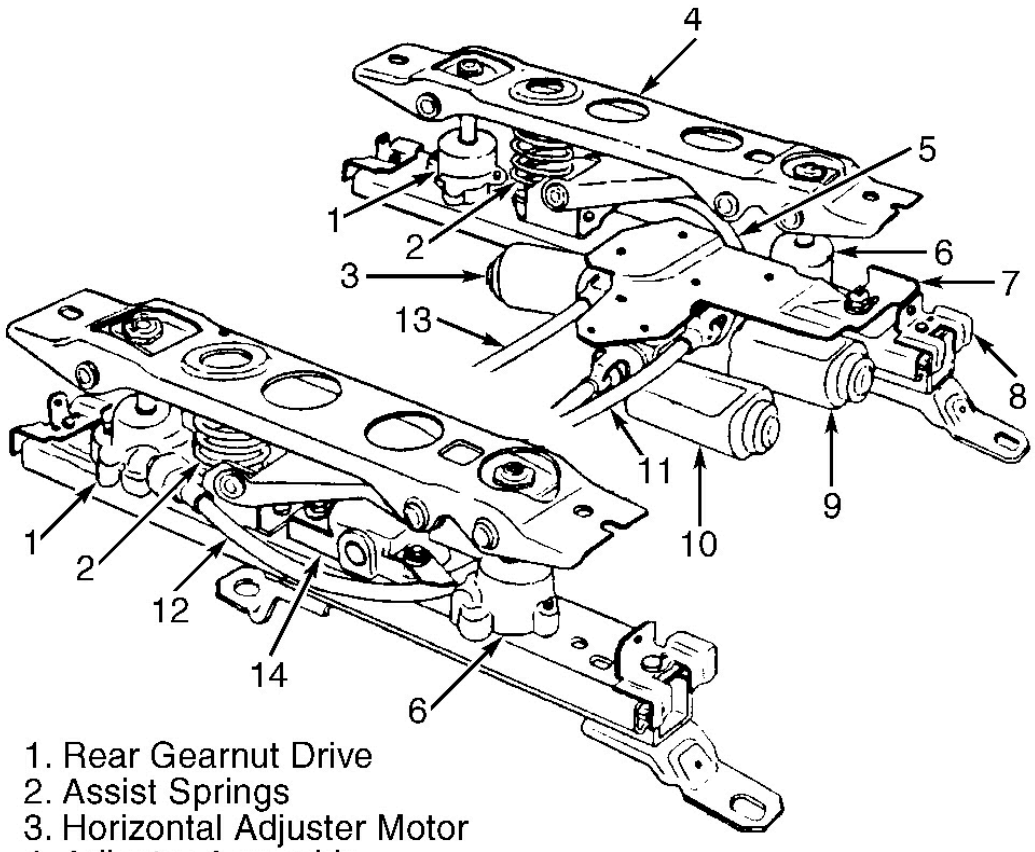
WARNING: Place adjuster in a bench vise before removing rear vertical adjuster, or ejection of compressed assist spring may cause personal injury.

Disassembly & Reassembly

Place adjuster in a bench vise. Remove rear adjuster nut. See **Fig. 4**. Slowly open vise to relieve spring compression, and remove rear adjuster and vertical assist spring. Remove front adjuster nut. Remove bolts/screws and horizontal actuator. Remove front and rear vertical actuators. To assemble, reverse disassembly procedure. Tighten adjuster nuts to 18 ft. lbs. (24 N.m).

Installation

To install, reverse removal procedure. Tighten upper and lower adjuster cover bolts/screws to 13 INCH lbs. (1.5 N.m). Tighten adjuster bolts/screws to 18 ft. lbs. (24 N.m).



1. Rear Gearnut Drive
2. Assist Springs
3. Horizontal Adjuster Motor
4. Adjuster Assembly
5. Rear Vertical Gearnut Cable
6. Front Gearnut Drive
7. Motor Support
8. Lower Channel Stop
9. Front Vertical Gearnut Motor
10. Rear Vertical Gearnut Motor
11. Front Vertical Drive Cable
12. Rear Vertical Drive Cable
13. Horizontal Drive Cable
14. Horizontal Adjuster Drive

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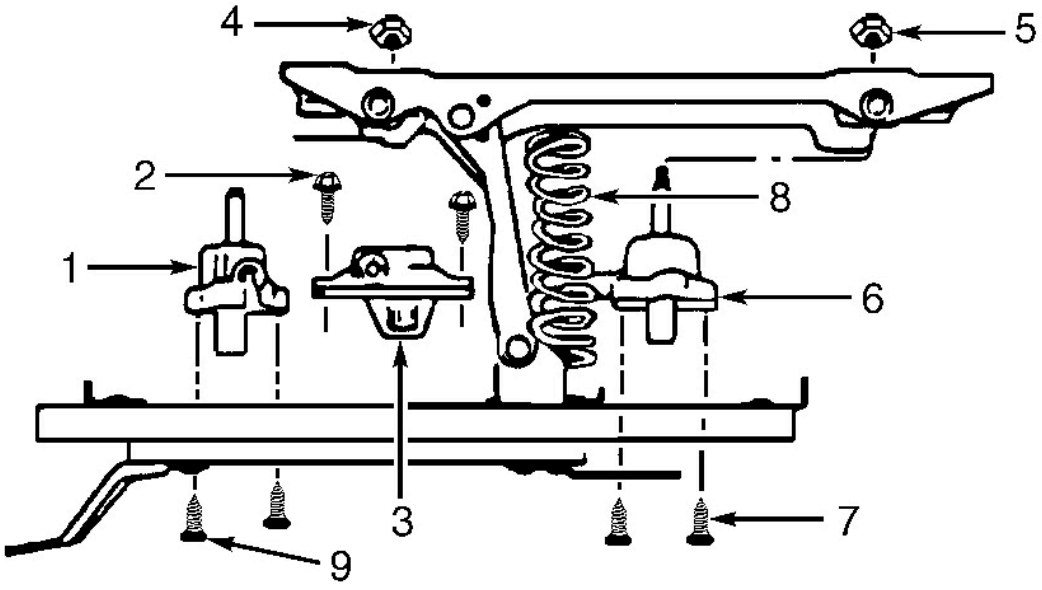
Fig. 3: Power Seat Adjuster Assembly (Caprice, Impala SS & Roadmaster)
Courtesy of GENERAL MOTORS CORP.



1. Front Vertical Actuator
2. Bolt/Screw
3. Horizontal Actuator
4. Front Adjuster Nut
5. Rear Adjuster Nut
6. Rear Vertical Actuator
7. Bolt/Screw
8. Vertical Assist Spring
9. Bolt/Screw

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Fig. 4: Removing Adjuster Assembly Components (Typical)
Courtesy of GENERAL MOTORS CORP.

DRIVE MOTOR

Removal & Installation

1. Remove seat. See **POWER SEAT R & I**. Disconnect drive cables. Remove nut and motor support, leaving motors attached. See **Fig. 3**. Disconnect electrical connectors. Grind off ends of grommet, and separate motors from motor support.
2. To install, reverse removal procedure. Using 3/16" drill bit, drill out top end of grommet. Use 3/16" rivets to secure motors to motor support.

SEAT TRACK & SEAT TRACK MOTORS

Removal & Installation (Seat Track)

Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Remove seat cushion finish panel. Disconnect electrical connectors. Remove pivot and recliner bolts/screws. Remove hitch pins from pivot pins. Remove pivot pins. Remove seat track.

2) To install, reverse removal procedure. Tighten power recliner bolts/screws to 24 ft. lbs. (32 N.m). Tighten pivot bolts/screws to 21 ft. lbs. (29 N.m). Tighten seat cushion finish panel bolts/screws to 97 INCH lbs. (11 N.m).

Removal & Installation (Seat Track Motor Only)

Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Remove motor and bracket bolts/screws. Being careful not to crimp flex shafts and cable housing, remove motor. To install, reverse removal procedure.

SEATBACK LUMBAR

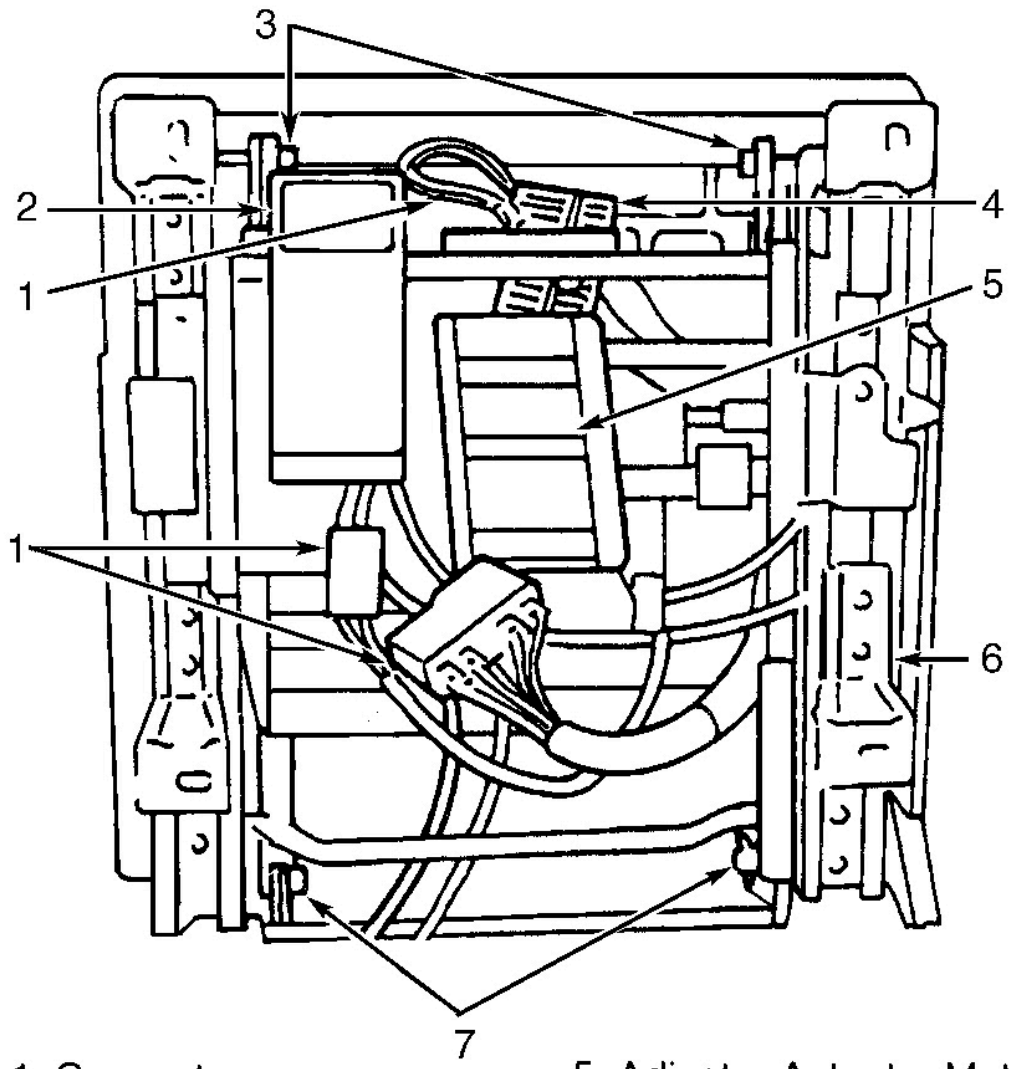
Removal & Installation

1. Move lumbar support to full back (relaxed) position. Remove head restraint. Remove reclining seatback. Remove seatback cover and pad. See **POWER RECLINER SEATBACK COVER & PAD**.
2. Pull center of lumbar strap forward until end is oriented 90 degrees from frame bracket. Slide each strap end from frame bracket, and remove lumbar strap from seatback frame. Cut straps from frame to release connector, and disconnect electrical connector. Remove bolts/screws and washers from motor and gear. Remove seatback lumbar. To install, reverse removal procedure.

MEMORY MODULE

Removal & Installation

Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Disconnect electrical connector. Remove bolt and memory module. See **Fig. 5**. To install, reverse removal procedure.



1. Connectors
2. Memory Module
3. Pivot Pins
4. Heater Control Module
5. Adjuster Actuator Motor
6. Adjuster
7. Pivot Pins

95B35155

Fig. 5: Locating Memory & Heater Components (Caprice, Impala SS & Roadmaster)
Courtesy of GENERAL MOTORS CORP.

HEATING ELEMENT

NOTE: Attached pads must also be replaced when replacing heating element.

Removal & Installation

1. Remove seat. See **POWER SEAT R & I**. Remove seat cushion cover. See **POWER RECLINER SEATBACK COVER & PAD**. Disconnect electrical connectors. See **Fig. 5**. Remove heating element with attached pad from seat cushion frame.
2. To install, remove backing paper from NEW heating element and attach to NEW pad. Align cutout in heating element to hook-and-loop strip on replacement pad. To complete installation, reverse removal procedure.

HEATER CONTROL MODULE

Removal & Installation

Move seat to full up position. Remove seat. See **POWER SEAT R & I**. Remove switch bolts/screws. Disconnect heater switch and heating elements electrical connectors. Remove retainers and heater control module. To install, reverse removal procedure. Tighten heater module switch bolts/screws to 93 INCH lbs. (10.5 N.m).

WIRING DIAGRAMS

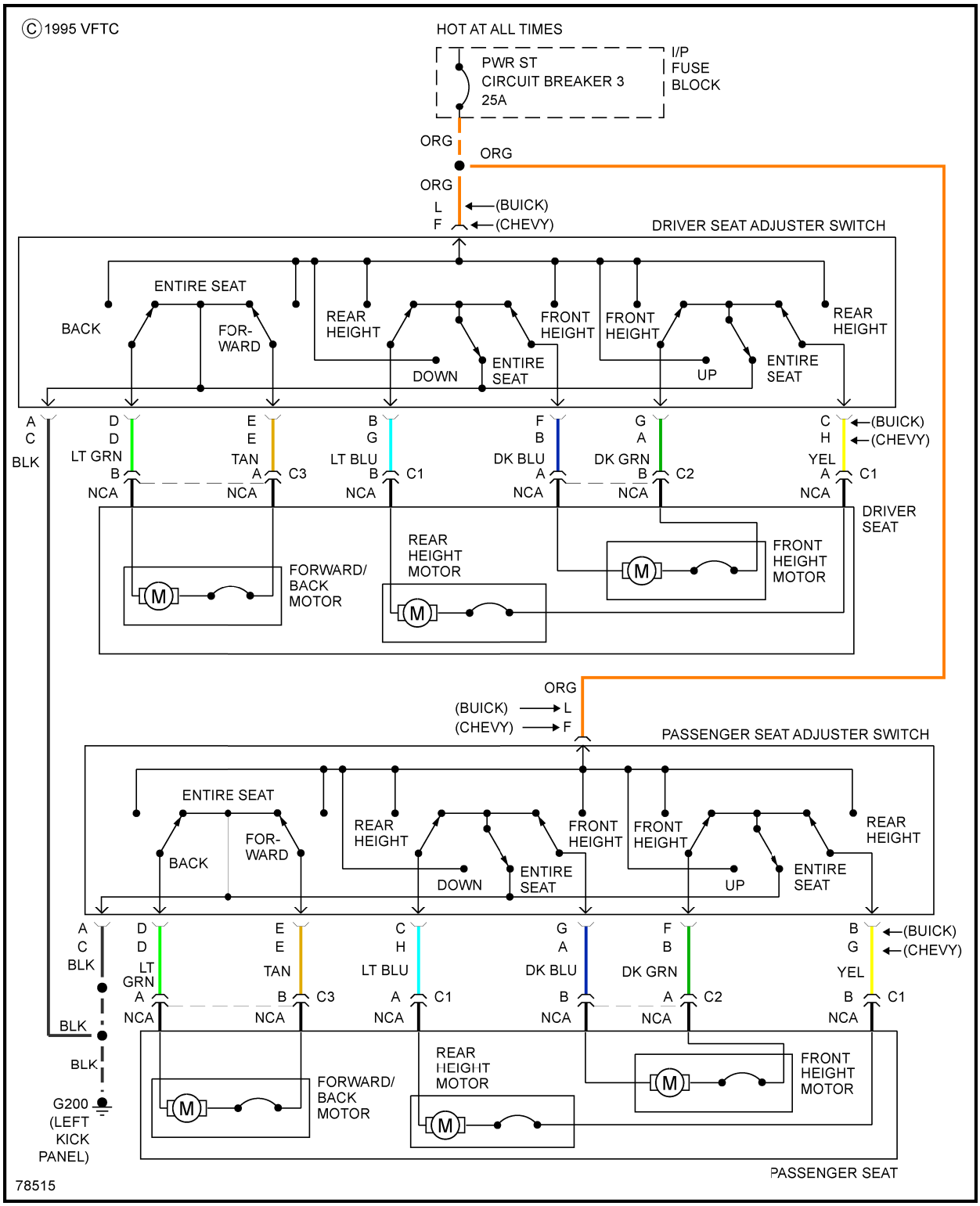

©1995 VFTC
HOT AT ALL TIMES
PWR ST
CIRCUIT BREAKER 3
25A
I/P
FUSE
BLOCK
ORG
ORG
ORG
L
F
(BUICK)
(CHEVY)
DRIVER SEAT ADJUSTER SWITCH
ENTIRE SEAT
BACK
FOR-
WARD
REAR
HEIGHT
DOWN
ENTIRE
SEAT
FRONT
HEIGHT
FRONT
HEIGHT
UP
ENTIRE
SEAT
REAR
HEIGHT
A
C
BLK
D
D
LT GRN
B
NCA
E
E
TAN
A
C3
NCA
B
G
LT BLU
B
C1
NCA
F
B
DK BLU
A
NCA
G
A
DK GRN
B
C2
NCA
C
H
YEL
A
C1
NCA
(BUICK)
(CHEVY)
DRIVER
SEAT
REAR
HEIGHT
MOTOR
FORWARD/
BACK
MOTOR
FRONT
HEIGHT
MOTOR
M
ORG
(BUICK)
(CHEVY)
L
F
PASSENGER SEAT ADJUSTER SWITCH
ENTIRE SEAT
BACK
FOR-
WARD
REAR
HEIGHT
DOWN
ENTIRE
SEAT
FRONT
HEIGHT
FRONT
HEIGHT
UP
ENTIRE
SEAT
REAR
HEIGHT
A
C
BLK
BLK
BLK
G200
(LEFT
KICK
PANEL)
D
D
LT
GRN
A
NCA
E
E
TAN
B
C3
NCA
C
H
LT BLU
A
C1
NCA
G
A
DK BLU
B
NCA
F
B
DK GRN
A
C2
NCA
B
G
YEL
B
C1
NCA
(BUICK)
(CHEVY)
REAR
HEIGHT
MOTOR
FORWARD/
BACK
MOTOR
FRONT
HEIGHT
MOTOR
PASSENGER SEAT
78515

Fig. 6: Power Seats Wiring Diagram (All Models)

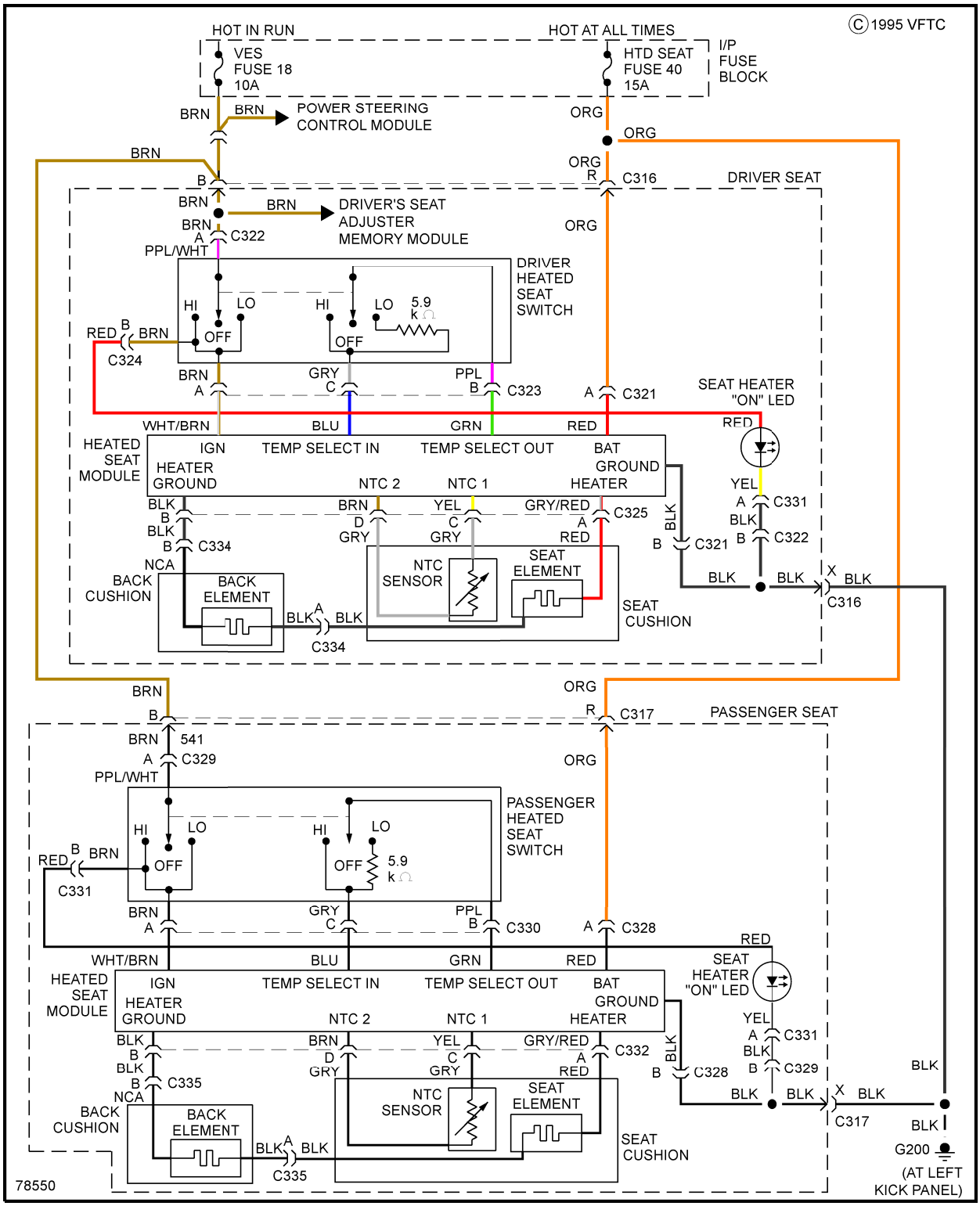

© 1995 VFTC
HOT IN RUN
HOT AT ALL TIMES
VES FUSE 18 10A
HTD SEAT FUSE 40 15A
I/P FUSE BLOCK
POWER STEERING CONTROL MODULE
DRIVER SEAT
DRIVER'S SEAT ADJUSTER MEMORY MODULE
C322
C316
C321
C323
C324
DRIVER HEATED SEAT SWITCH
SEAT HEATER "ON" LED
C331
C322
HEATED SEAT MODULE
IGN
HEATER GROUND
TEMP SELECT IN
TEMP SELECT OUT
BAT
GROUND HEATER
NTC 2
NTC 1
C325
C334
NCA
BACK CUSHION
BACK ELEMENT
NTC SENSOR
SEAT ELEMENT
SEAT CUSHION
PASSENGER SEAT
C317
C329
C330
C328
PASSENGER HEATED SEAT SWITCH
C331
C332
C335
C329
C317
G200
(AT LEFT KICK PANEL)
78550

Fig. 7: Power Heated Seats Wiring Diagram (Roadmaster)

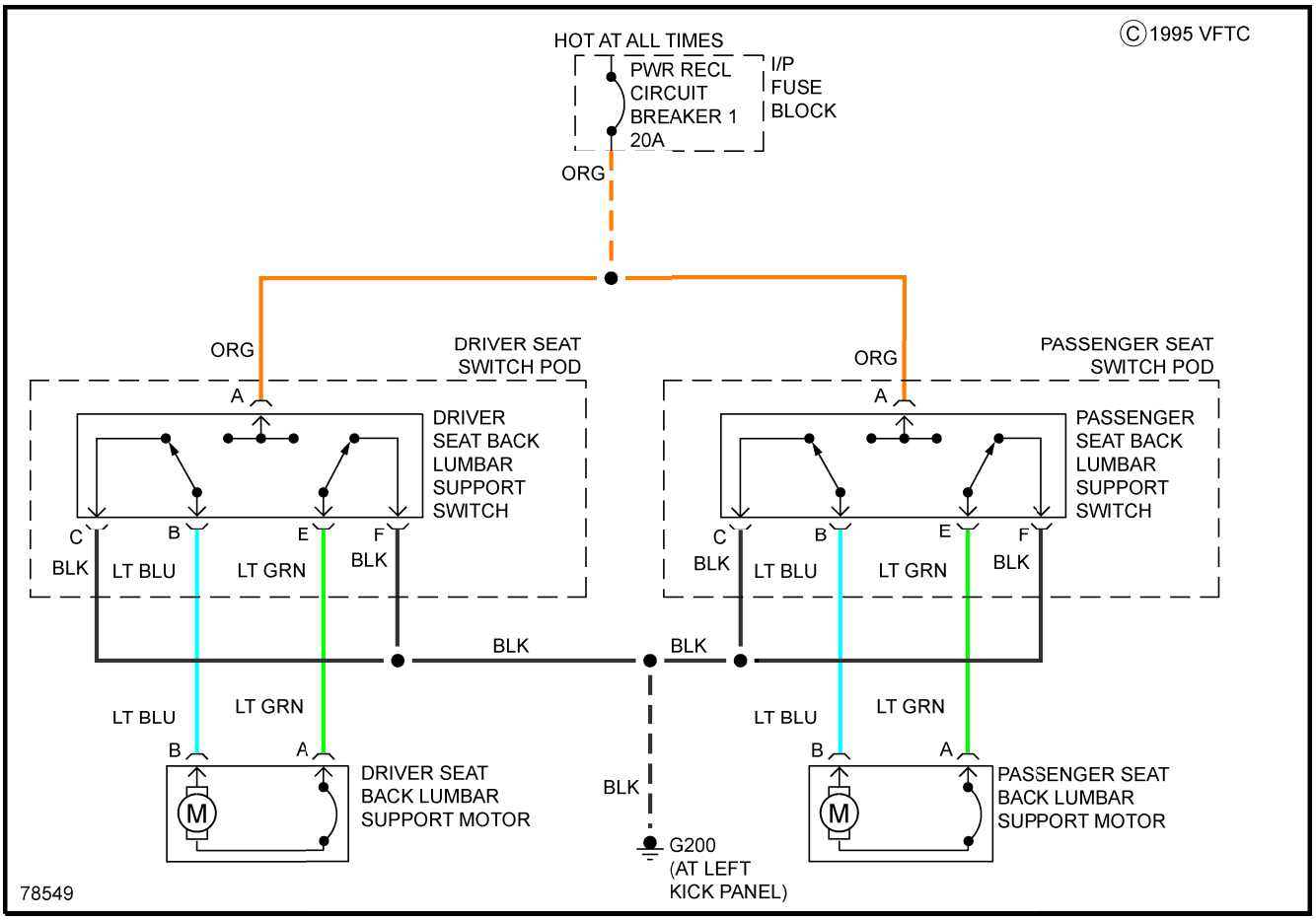

HOT AT ALL TIMES
PWR RECL CIRCUIT BREAKER 1 20A
I/P FUSE BLOCK
ORG
ORG
DRIVER SEAT SWITCH POD
DRIVER SEAT BACK LUMBAR SUPPORT SWITCH
A
C
B
E
F
BLK
LT BLU
LT GRN
BLK
ORG
PASSENGER SEAT SWITCH POD
PASSENGER SEAT BACK LUMBAR SUPPORT SWITCH
BLK
BLK
LT BLU
LT GRN
BLK
LT BLU
LT GRN
DRIVER SEAT BACK LUMBAR SUPPORT MOTOR
M
BLK
G200
(AT LEFT KICK PANEL)
LT BLU
LT GRN
PASSENGER SEAT BACK LUMBAR SUPPORT MOTOR
78549

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Fig. 8: Power Lumbar Seats Wiring Diagram (Roadmaster)

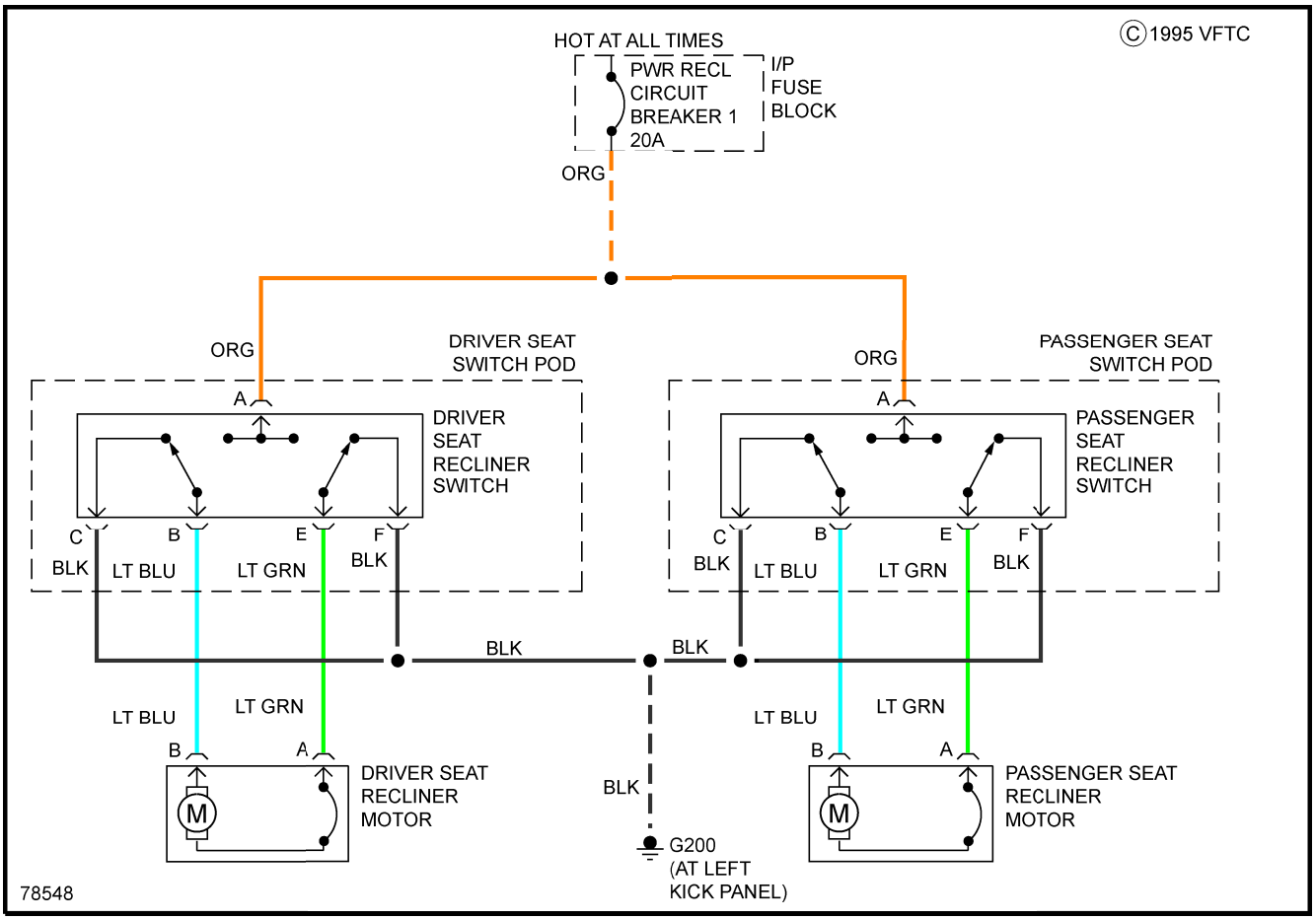
HOT AT ALL TIMES
PWR RECL CIRCUIT BREAKER 1 20A
I/P FUSE BLOCK
ORG
ORG
DRIVER SEAT SWITCH POD
DRIVER SEAT RECLINER SWITCH
A
C
B
E
F
BLK
LT BLU
LT GRN
BLK
ORG
PASSENGER SEAT SWITCH POD
PASSENGER SEAT RECLINER SWITCH
BLK
BLK
LT BLU
LT GRN
BLK
LT BLU
LT GRN
LT BLU
LT GRN
B
A
M
DRIVER SEAT RECLINER MOTOR
BLK
PASSENGER SEAT RECLINER MOTOR
G200
(AT LEFT KICK PANEL)
78548

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Fig. 9: Power Reclining Seats Wiring Diagram (Roadmaster)

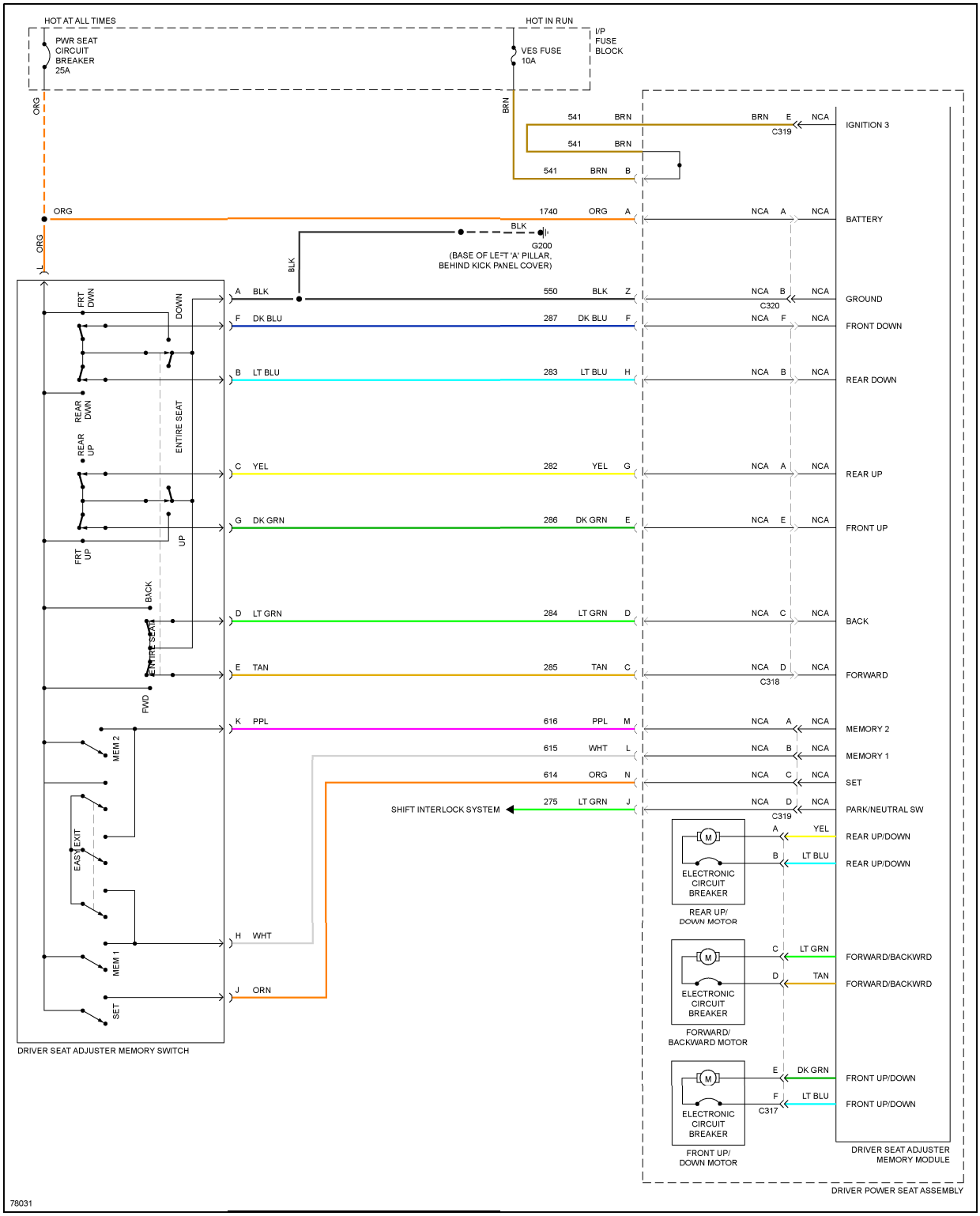
HOT AT ALL TIMES
PWR SEAT CIRCUIT BREAKER 25A
HOT IN RUN
VES FUSE 10A
I/P FUSE BLOCK
ORG
BRN
541 BRN
BRN E NCA
C319
IGNITION 3
541 BRN
541 BRN B
ORG
1740 ORG A
NCA A NCA
BATTERY
BLK
G200
(BASE OF LEFT 'A' PILLAR, BEHIND KICK PANEL COVER)
A BLK
550 BLK Z
NCA B NCA
C320
GROUND
F DK BLU
287 DK BLU F
NCA F NCA
FRONT DOWN
B LT BLU
283 LT BLU H
NCA B NCA
REAR DOWN
C YEL
282 YEL G
NCA A NCA
REAR UP
G DK GRN
286 DK GRN E
NCA E NCA
FRONT UP
D LT GRN
284 LT GRN D
NCA C NCA
BACK
E TAN
285 TAN C
NCA D NCA
C318
FORWARD
K PPL
616 PPL M
NCA A NCA
MEMORY 2
615 WHT L
NCA B NCA
MEMORY 1
614 ORG N
NCA C NCA
SET
275 LT GRN J
NCA D NCA
C319
PARK/NEUTRAL SW
SHIFT INTERLOCK SYSTEM
A YEL
REAR UP/DOWN
B LT BLU
REAR UP/DOWN
ELECTRONIC CIRCUIT BREAKER
REAR UP/ DOWN MOTOR
C LT GRN
FORWARD/BACKWRD
D TAN
FORWARD/BACKWRD
ELECTRONIC CIRCUIT BREAKER
FORWARD/ BACKWARD MOTOR
E DK GRN
FRONT UP/DOWN
F LT BLU
C317
FRONT UP/DOWN
ELECTRONIC CIRCUIT BREAKER
FRONT UP/ DOWN MOTOR
DRIVER SEAT ADJUSTER MEMORY MODULE
DRIVER POWER SEAT ASSEMBLY
FRT DWN
DOWN
REAR DWN
REAR UP
ENTIRE SEAT
FRT UP
UP
BACK
ENTIRE SEAT
FWD
MEM 2
EASY EXIT
MEM 1
SET
H WHT
J ORN
DRIVER SEAT ADJUSTER MEMORY SWITCH
78031

Fig. 10: Power Memory Seats Wiring Diagram (Roadmaster)